HORNEOPHYTON, A NECESSARY CHANGE OF NAME FOR HORNEA

BY

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IN 1920, Robert Kidston and William H. Lang described under the name of *Hornea Lignieri* a remarkable fossil plant from the Middle Devonian Rhynie Chert of Scotland. Morphologists have regarded this fossil as of great phylogenetic significance so that it is very well known; indeed it is so well known that it appears in elementary textbooks of botany and geology.

Recently, during the progress of working over a newly acquired collection of specimens of woods of existing angiosperms received by the Biological Laboratories of Harvard University, it was discovered that the name *Hornea* had also been used for a sapindaceous tree. Reference to the original description of this species showed that it belonged to a monotypic genus which had been described by J. G. Baker in 1877. The prior use of the name *Hornea* in the Sapindaceae thus preoccupies the generic designation for the fossil psilophyte, *Hornea Lignieri*. According to the International Rules of Botanical Nomenclature, it is necessary to give a new name to the fossil plant because of a prior use of the generic name *Hornea*. Interestingly enough, the fossil form is much better known and is, by far, more familiar than the extant Hornea which occurs in Mauritius.

The original descriptions of *Hornea mauritiana* Baker and *Hornea Lignieri* Kidston and Lang are here copied.

Hornea *Baker*. 1877. Flora of Mauritius and the Seychelles. London. p. 59.

"Flowers polygamous. Sepals 5, round, much imbricated, silky on the back, naked on the face, the two

outer smallest. Petals 5, just like the inner sepals in shape and vestiture, but with a densely pilose emarginate scale at the claw. Disk cup-shaped, irregularly lobed, enclosing the stamens and ovary. Stamens 20–24, inserted inside the disk, glabrous; filaments short, filiform; anthers minute, oblong. Ovary sessile, densely pilose, 2-celled, with a single ovule in each cell from the axis below the middle; style short, simple, pilose; stigma capitate. Fruit a 2-lobed velvety samara, with a broad wing. Seed globose, black. Endemic and monotypic."

Hornea mauritiana *Baker*. l.c. p. 59.

"A shrub or tree, with branchlets clothed with brownish silky hairs. Leaves short-petioled, equally pinnate; leaflets 4, sessile, oblong, obtuse, glabrous, coriaceous, venulose, 2–4 in. long, oblique at the base. Flowers in axillary and terminal panicles with silky ascending branches; pedicels very short. Petals and inner sepals $\frac{1}{4}$ in. long. Lobes of samara rhomboid, erecto-patent, an inch long, above $\frac{1}{2}$ in. broad, brown-velvety, rigidly coriaceous, the wing as broad as the cell. *Thouinia? mauritiana*, Bojer, *Hort. Maur*. 1837. 56 (name only)."

It should be noted that *Thouinia (?) mauritiana* Bojer has no standing because Bojer's work was merely an enumeration of species, not accompanied by descriptions. The monotypic genus *Hornea* is taxonomically closely allied to *Thouinia*, but has been considered distinct since the publication of Baker's Flora.

Hornea *Kidston & Lang*. 1920. Trans. Roy. Soc. Edinb. vol. 52. p. 616.

"Plants rootless and leafless. Stems arising from protocorm-like rhizomes, dichotomously branched. Sporangia terminal on ultimate branches, with a sterile columella projecting from the base into the sporangial cavity, and cuticularized spores developed in tetrads."

Hornea Lignieri *Kidston & Lang.* l.c. p. 616.

"Plant small, consisting of a lobed rhizome from which arise stems which branch dichotomously and range from 2 mm. in diameter downwards. Stele of stem with a zone of phloem surrounding the xylem composed of small central and wider peripheral tracheides. Sporangia cylindrical, terminal on branches, indehiscent, with thick wall composed of thickened epidermis, thin-walled tissue, and persistent tapetal layer. Sterile columella composed of thin-walled elongated cells extending from base to near top of sporangium. Homosporous. Spores about 50 μ. in diameter."

Locality—Muir of Rhynie, Aberdeenshire, Scotland.

Horizon—Old Red Sandstone, Middle Devonian.

There are no synonyms for this monotypic genus. The fossil plant is a member of the Rhyniaceae, in the order Psilophytales.

Inasmuch as the fossil "*Hornea*" is both better known and of much greater importance to the botanist and paleobotanist than the sapindaceous genus of the same name, it is unfortunate that a duplication of names has occurred. However, we propose to change the name of the Devonian psilophyte, hitherto known as *Hornea Lignieri* to **Horneophyton Lignieri.** This new name reduces possible confusion to a minimum. The root *Horneo* involves but slight orthographic change, and the suffix *phyton* is very frequently used in the naming of extinct plants—particularly those found in rocks of Devonian age.

Horneophyton *nom. nov.*

Hornea Kidston & Lang, non Baker.

Horneophyton Lignieri *(Kidst. & Lang) comb. nov.*

Hornea Lignieri Kidston & Lang.